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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,533	09/13/2004	Steven Charles Deane	GB020017	1364

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PHILIPS ELECTRONICS NORTH AMERICA CORPORATION  
INTELLECTUAL PROPERTY & STANDARDS  
370 W. TRIMBLE ROAD MS 91/MG  
SAN JOSE, CA 95131

EXAMINER
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PHAM, TAMMY T

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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08/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,533	<b>Applicant(s)</b> DEANE ET AL.	
	<b>Examiner</b> Tammy Pham	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

2. In regards to claims 1-9, the claim limitations states "*at least one further analogue input or output interface (claim 1, lines 2-3, lines 5-6; claim 3, lines 1-2; claim 4, lines 1-2, claim 6, lines 3-4; claim 9, lines 4-5).*" This is indefinite because the term "further" suggests that there are additional analogue input or output interface; however, there is no mention of previously referred analogue input or output interface. Examiner suggest that the term "one further" be replaced with "an."

3. In regards to claim 6, the claim teaches of "*additional output of outputs for the or each circuit (claim 6, lines 3-4).*" The current claim language remains vague and indefinite. Examiner will proceed with the rejection as best understood (that there is at least one output for each of the circuit), however, appropriate correction is needed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada (US Patent Application No: 2002/0084998 A1) in view of Itoh et al. (US Patent No: 4,687,956).

**In regards to independent claim 1**, Sawada teaches of an electronic device (Fig. 1) comprising a display module (Fig. 1, item 34) and a battery unit (Fig. 1, item 41) for driving the device (Fig. 1), the device (Fig. 1) having at least one further analogue input (Fig. 1, items 31, 32), wherein the display module (Fig. 1) comprises a voltage converter (Fig. 1, item 43, section [0031]) for providing voltage, and wherein an output from the voltage converter (Id.) of the display module (Fig. 1) is provided to a circuit (Fig. 1, item 21) associated with the at least one further analogue input (Fig. 1, items 31, 32).

Sawada fails to teach that the voltage converter provides at least one voltage exceeding the battery unit voltage.

Itoh teaches of a voltage converter (Fig. 2, item 3) provides at least one voltage exceeding the battery unit voltage (Fig 2, item 1).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the voltage converter/ battery booster of Itoh with the battery of Sawada in order to increase a driving voltage for a liquid crystal element while minimizing a voltage loss

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during generation of the driving voltage and is still capable of ensuring stable driving of the element despite any variation occurring in a battery voltage applied as a driving input (Itoh: column 2, lines 15-21).

**In regards to independent claim 9**, please see the rejection of claim 1 above.

**In regards to claim 2**, Sawada teaches that the display module (Fig. 1) comprises an active matrix LCD module (Fig. 1, item 34), comprising row and column driver circuits (inherent).

**In regards to claim 3**, Sawada teaches that the circuit (Fig. 1, item 2) associated with the at least one further analogue input (Fig. 1, items 31, 32) comprises one or more of a speaker driver circuit (Fig. 1, item 32), and a microphone amplifier (Fig. 1, item 31).

**In regards to claim 4**, Sawada teaches that the circuit (Fig. 1, item 2) associated with at least one further analogue input (Fig. 1, items 31, 32) is provided within the display module (Fig. 1, item 3).

**In regards to claim 5**, Sawada teaches that a digital interface is provided between the display module (Fig. 1, item 3) and the remaining circuitry of the device (Fig. 1, item 2).

**In regards to claim 6**, Sawada as modified above in claim 2, teaches that the voltage converter (Sawada, Fig. 1, item 43, section [0031]) provides an output (Fig. 1, output of item 43 inputted into item 21) for the circuit (Fig. 1, item 2).

Sawada fails to teach that the voltage converter provides a first output for the row driver circuit and a second output for the column driver circuit.

Examiner takes official notice that it is well known in the art to have a voltage converter provide a first output for the row driver circuit and a second output for the column driver circuit.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a voltage converter provides first and second output to the row and column driver (respectively) in order to supply the drivers with its corresponding voltages.

**In regards to claim 7**, Sawada teaches that the display module (Fig. 1) comprises additional circuit elements (see elements of Fig. 1).

**In regards to claim 8**, Sawada teaches that the device (Fig. 1) comprising a mobile telephone or a PDA (section [0002]).

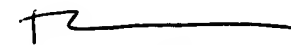
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TP  
21 August 2007

  
*Tammy Pham*  
Patent Examiner  
Art Unit 2629

  
SUMATI LEFKOWITZ  
SUPERVISORY PATENT EXAMINER